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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/560,189

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Akira Yoshida

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05/13/2009

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EXAMINER

HU, HENRY S

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/560,189	<b>Applicant(s)</b> YOSHIDA, AKIRA	
	<b>Examiner</b> HENRY S. HU	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on Election of January 22, 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 1-5 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-10 is/are rejected.
- 7) ☒ Claim(s) 1 and 2 is/are objected to.
- 8) ☒ Claim(s) 1-10 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

1. USPTO has received **Election** filed on January 22, 2009. **Applicant's Election of Group III, Claims 6-10 is traversed with remarks on page 1.** The traversal is based on the ground(s) that it would not place an undue burden to search and examine the non-elected Group I (Claims 1 and 3-5) and Group II (Claim 2) with the elected Group III since they are so closely related in the field of vulcanized fluororubber. This is not found persuasive because each of Groups I, II and III is each drawn to a technology apparently requiring search in different classification area. In the instant case, Groups I, and II was each drawn to different vulcanized fluororubber which comprises obviously different mixture, while Groups III was drawn to different subject matter such as a cushion material.

2. The subject matter from each group may comprise the same or at least similar type fluororubber, the involved composition along with function and application are indeed quite different. Attention is directed to the fact that Group I uses a mixture of two different raw fluororubbers (A) and (B), while Group II only uses only one raw fluororubber. Group III relates to an article made through a hot-press process. They are thereby not interchangeable vulcanized fluororubbers. Therefore the scope of the claims, i.e., the metes and boundaries are distinct.

The requirement is still deemed proper and is therefore made FINAL. This Application is a **371/PCT/JP04/06843** with a Japanese priority at June 9, 2003. Applicants' **Pre-Amendment** and **four IDS** (1 page each) have been filed so far. With such a pre-amendment, Claims 3-6 and 9-10 are amended to only remove the improper multiple claim dependency, while no claim is cancelled or added. **Claims 1-10 with two independent claims** (Claims 1 and 2) are now pending, while non-elected Claims 1 and 3-5 (Group I) and Claim 2 (Group II) are withdrawn from consideration. An action follows. See international search report in Applicants' priority paper **WO 2004/108819 A1 to Yoshida**)

### *Claim Objections*

3. **Claims 1 and 2 are objected to** because of the following informalities:

(a) On **Claim 1** at line 2, the language as “**an appropriate amount**” is improper since it is unclear what the actual number is. It needs to be changed with more solid statement according to MPEP.

(b) On **Claims 1 and 2**, rewriting claims for more clarification is suggested. Examiner suggests using the format similar to the one used in paragraph # 5. Otherwise, the ordinary skill in the art may be confused.

### *Claim Rejections - 35 USC § 103*

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4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. The limitation of parent **Claim 6** in present invention relates to **a hot-press cushion material**, which is provided with the vulcanized fluororubber according to independent **Claim 1**.

*Said vulcanized fluoro rubber is provided by vulcanizing a composition comprising three or four components including (A), (B), (b) and optional (c):*

*(a) 100 parts by mass of “mixture” in which a raw fluoro rubber (A) in which an appropriate amount of vulcanizing agent has been previously compounded and a raw fluoro rubber (B) in which the vulcanizing agent is not compounded are mixed at a rate of 8/2 to 3/7, wherein number average molecular weight of each of said raw fluororubber (A) and said raw fluororubber (B) is  $3.5 \times 10^4$  to  $2.0 \times 10^5$ .*

*(b) 1 to 10 parts by mass of an acid acceptor and*

*(c) 0 to 5 parts by mass of “another” compounding agent.*

*See other limitations of dependent **Claims 7-10**.*

6. **Claims 6-10 are rejected** under 35 U.S.C. 103(a) as being obvious over **Tanaka** et al. (US 6,391,460 B1), **Kenichi** et al. (JP 2001-192482) and **Yasuhisa** et al. (JP 07-026052) in combination or alone, in view of a combination of **Sonoi** et al. (US 5,446,081 or its equivalent JP 6116464) and **Blenner** et al. (US 4,394,205).

Regarding “**hot-press cushion material**” of parent **Claim 6**, it is made by using a vulcanized fluororubber (as disclosed in Claim 1), which is provided by vulcanizing a composition comprising a mixture of three or four components including fluororubber (A), fluororubber (B), acid acceptor (b) and compounding agent (c) while the use of (c) is optional. The critical point is that the starting fluororubber (A) has been pre-compounded with vulcanizing agent, while the starting fluororubber (B) is not pre-compounded with any vulcanizing agent. Open language “**comprising**” is applied to the composition of Claim 1.

7. Three references including **Tanaka, Kenichi and Yasuhisa** in combination or alone has disclosed and/or suggested a process for producing a hot-press cushioning pad by using a vulcanized fluororubber composition for compounding/blending. Said composition is fundamentally comprising at least three components including: (a) a vulcanized fluororubber,

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(b) an acid acceptor (such as magnesium oxide or calcium hydroxide), and (c) “other” type compounding agent (such as plasticizer and the like).

8. To be specific, see **Tanaka** at title; abstract; Table 1 at columns 5-6; particularly see fluororubber is pre-vulcanized by polyol vulcanizing agent; column 5, line 1-13; column 6, line 58-59. See **Kenichi** at title; abstract; particularly see fluororubber is pre-vulcanized by polyol vulcanizing agent. See **Yasuhisa** at title; abstract; particularly see fluororubber is pre-vulcanized or pre-crosslinked by polyol vulcanizing agent.

9. Therefore, **Tanaka, Kenichi and Yasuhisa** in combination or alone is silent about a combination of two things including: (A) adding a starting **fluororubber (B) is not pre-compounded with any vulcanizing agent**, and (B) the **motivation** along with its **advantage** why do so. A combination of **Sonoi and Blenner** has taught these two subject matters at the same time as: **Two (different type) fluororubbers** such as **unvulcanized fluororubber/vulcanized fluororubber** or **solid fluororubber/liquid fluororubber** can be bonded and compounded together. By doing so, the vulcanized final composite/blend becomes low hardness (such as JIS A hardness), which is very good property for cushion purpose. See **Sonoi** at title; abstract; see **Blenner** at abstract; column 1, line 9-11 and 33-40 for the composite advantage.

10. In light of two facts including: (A) all involving references are dealing with working up the vulcanized fluororubber composition, and (B) the addition of other type fluororubber

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including unvulcanized fluororubber will improve the low hardness (such as JIS A hardness, which is very good property for cushion purpose), one having ordinary skill in the art would therefore have found it obvious to modify Tanaka, Kenichi or Yasuhisa's process of making vulcanized fluororubber composition to be useful for hot-press cushion by specifically adding other type fluororubber including unvulcanized fluororubber so as to be together with pre-vulcanized fluororubber as taught by a combination of Sono and Blenner. **At least two advantages** are obtained by including such an extra step. For instance, the vulcanized final composite/blend becomes low hardness (such as JIS A hardness), which is very good property for cushion purpose. Better and effective process of making cushion product may be thereby obtained.

11. Regarding **Claims 7-10**, the disclosure of Tanaka at column 4, line 11-24 reads on all the limitations of Claims 7-10. To be specific, see lines 12 and 24 for releasing treatment on the surface of the layers (Claim 10). See lamination treatment being between multiple layers at line 16 (Claims 7-8). See one or more layers are formed by woven fabric, paper, film, foil and the like materials at lines 13-21 (Claim 8).

### ***Conclusion***

12. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. The following references relate to a hot-press cushion material provided with the



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vulcanized fluororubber, which is provided by vulcanizing a composition comprising three or four components including (A), (B), (b) and optional (c) as specified:

**US 7,018,705 B2 to Nakatani** et al. only discloses the preparation of some multiplayer circuit boards by using some **cured and uncured thermosetting resins with lamination**. See column 2, line 42-60; column 10, line 33-41. The claimed vulcanized fluororubber composition as well as to be useful as cushion are not disclosed or suggested. Therefore, Nakatani fails to teach or fairly suggest the hot-press cushion composition limitation of present application.

13. Any inquiry concerning this communication or earlier communication from the examiner should be directed to **Dr. Henry S. Hu whose telephone number is (571) 272-1103**. The examiner can be reached on Monday through Friday from 9:00 AM –5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dr. Vasu Jagannathan, can be reached on (571) 272-1119. The **fax** number for the organization where this application or proceeding is assigned is **(571) 273-8300** for all regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

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/Peter D. Mulcahy/  
Primary Examiner, Art Unit 1796

/Henry S. Hu/  
Examiner, Art Unit 1796

May 6, 2009